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REMARKS/ARGUMENTS

Claims 1, 3-5, 7 and 9-11 are pending in this application. By this Amendment, Applicants amend claims 1 and 7 and cancel claims 2, 6, 8 and 12-15.

Claims 1 and 7 were rejected under 35 U.S.C. § 102(a) as being anticipated by Koshino (U.S. 4,683,394), Bulst et al. (U.S. 4,682,130) or Satoh et al. (U.S. 4,978,879). Claims 2-4 and 8-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Koshino, Bulst et al. or Satoh et al. And claims 5, 6, 11 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art in view of Koshino or Sato et al. (JP 6-350390). Applicants respectfully traverse these rejections.

Claim 1 has been amended to recite:

"A surface acoustic wave device comprising:

first and second longitudinally coupled resonator type surface acoustic wave filters, each of said first and second surface acoustic wave filters having a piezoelectric substrate, at least one interdigital electrode transducer disposed on the piezoelectric substrate, and at least one reflector disposed on the piezoelectric substrate;

a package having the first and second surface acoustic wave filters mounted therein and electrode lands electrically connected to each of the first and second surface acoustic wave filters; and

a plurality of bonding wires electrically connecting each of the first and second the surface acoustic wave filters to the electrode lands of the package, wherein the bonding wires are arranged so as not to pass over both of the at least one interdigital electrode transducer and the at least one reflector of either of the first and second surface acoustic wave filters; wherein

said at least one interdigital electrode transducer and said at least one reflector of each of the first and second surface acoustic wave filters is made of a metal having a heavier mass than that of aluminum or an alloy including the metal." (emphasis added)

Claim 7 recites features that are similar to the features recited in claim 1, including the emphasized features.

Claim 1 has been amended to recite the features recited in originally filed claims

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2 and 6, and claim 7 has been amended to recite the features recited in originally filed claims 8 and 12.

The present claimed invention including the features of "first and second longitudinally coupled resonator type surface acoustic wave filters," "a plurality of bonding wires electrically connecting each of the first and second the surface acoustic wave filters to the electrode lands of the package, wherein the bonding wires are arranged so as not to pass over both of the at least one interdigital electrode transducer and the at least one reflector of either of the first and second surface acoustic wave filters" and "said at least one interdigital electrode transducer and said at least one reflector of each of the first and second surface acoustic wave filters is made of a metal having a heavier mass than that of aluminum or an alloy including the metal" provides a surface acoustic wave device in which frequency adjustment can be performed with a high degree of precision (see, for example, the second full paragraph on page 5 of the originally filed specification).

The Examiner alleged that AAPA teaches the specific SAW configuration except that the jumper wires cross over the electrode and/or reflector elements. The Examiner further alleged that Sato and Koshino teach connection of multiple SAWs to the terminal pads via jumper wires that are specifically routed so as not to cross any electrode or reflector fingers. The Examiner finally alleged that "such constructions would eliminate possible unwanted capacitive coupling and possible short circuiting during manufacturing." Applicants respectfully disagree.

As taught by AAPA, Fig. 4, conventionally when two or more filters are longitudinally connected to one another via electrode pads, the bonding wires pass over an IDT or a reflector. With the arrangement taught by AAPA, when the IDTs and reflectors are made of a metal that is heavier than aluminum or an alloy including the metal, ripples are produced when the surface of the piezoelectric substrate is trimmed, for example, by an ion beam. The ripples are not produced when the IDTs and reflectors are made of aluminum.

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The inventors of the present invention discovered that the occurrence of ripples is suppressed when the bonding wires do not pass over any of the IDTs or reflectors of the longitudinally coupled resonator type surface acoustic wave filters as recited in the present claimed invention.

The Examiner alleged that it would have been obvious to modify the device of AAPA Fig. 4 such that the bonding wires do not pass over the IDTs and the reflectors thereof. However, AAPA Fig. 4 specifically teaches away from the arrangement alleged by the Examiner, since AAPA specifically teaches that the bonding wires do pass over the IDTs and reflectors of the device.

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that the applicant took. In re Gurley, 27 F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994). Accordingly, AAPA cannot be relied upon in an obviousness rejection of Applicants' claimed invention since it is error to find obviousness where references diverge and teach away from the invention at hand. W.L. Gore & Assoc. v. Garlock Inc., 721 F.2d 1540, 1550, 220 USPQ 303, 311 (Fed. Cir. 1983).

Furthermore, the Examiner alleged that it would have been obvious to modify AAPA such that the bonding wires do not pass over the IDTs and reflectors, as allegedly taught by Sato and Koshino because "such constructions would eliminate possible unwanted capacitive coupling and possible short circuiting during manufacturing." However, neither Sato nor Koshino teaches or suggests first and second longitudinally coupled resonator type surface acoustic wave filters. Since the devices of Sato and Koshino do not include first and second longitudinally coupled resonator type surface acoustic wave filters, and thus, do NOT experience the problems caused by the bonding wires that pass over the IDTs and reflectors, Applicants respectfully submit that there would have been no motivation to combine the alleged teachings of Sato or Koshino with AAPA.

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Furthermore, neither Sato nor Koshino teaches or suggests that bonding wires that do not pass over the IDTs or reflectors "eliminate possible unwanted capacitive coupling" or "possible short circuiting" during manufacture, as alleged by the Examiner. In fact, neither Sato nor Koshino teaches or suggests any benefits which may be obtained by arranging the bonding wires so as not to pass over the IDTs or reflectors. Thus, Applicants respectfully submit that there would have been no motivation to combine the teachings of Sato or Koshino with AAPA, as alleged by the Examiner.

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In re Geiger, 815 F.2d 686, 2 USPQ 1276, 1278 (Fed. Cir. 1987). The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. In re Gordon, 221 USPQ 1125 (Fed. Cir. 1984).

Instead of basing the conclusion of obviousness on actual teachings or suggestions of the prior art and the knowledge of one of ordinary skill in the art at the time the invention was made, the Examiner has improperly used Applicants' own invention as a guide. It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. In re Fritch, 972 F.2d 1260, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992).

Bulst et al. and Satoh et al. were relied upon to allegedly teach bonding wires which do not pass over IDTs or reflectors. However, neither Bulst et al. nor Satoh et al. teaches or suggests the combination of "first and second longitudinally coupled resonator type surface acoustic wave filters," "a plurality of bonding wires electrically connecting each of the first and second the surface acoustic wave filters to the electrode lands of the package, wherein the bonding wires are arranged so as not to

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pass over both of the at least one interdigital electrode transducer and the at least one reflector of either of the first and second surface acoustic wave filters" and "said at least one interdigital electrode transducer and said at least one reflector of each of the first and second surface acoustic wave filters is made of a metal having a heavier mass that that of aluminum or an alloy including the metal" as recited in the present claimed invention. Thus, Applicants respectfully submit that Bulst et al. and Satoh et al. fail to cure the deficiencies of AAPA, Koshino and Sato described above.

Accordingly, Applicants respectfully submit that AAPA, Koshino, Sato, Bulst et al. and Satoh et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in claims 1 and 7 of the present application.

In view of the foregoing amendments and remarks, Applicants respectfully submit that Claims 1 and 7 are allowable. Claims 3-5 and 9-11 depend upon claims 1 and 7, respectively, and are therefore allowable for at least the reasons that claims 1 and 7 are allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicant petitions the Commissioner for a One-month extension of time, extending to December 26, 2003, the period for response to the Office Action dated August 26, 2003.

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The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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